



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

JUL 17 2000

Dear exemption holders of DOT-E 970:

Enclosed is the 9th revision of DOT-E 970. Please note that a modification of the exemption was initiated by this office, by clarifying paragraph 7.a.4 concerning the use and markings of open-head steel drums.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Ryan Posten', written over a horizontal line.

R. Ryan Posten
Exemptions Program Officer
Office of Hazardous Materials
Exemptions and Approvals



U.S. Department
of Transportation

Research and
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400 Seventh Street, S.W.
Washington, D.C. 20590

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DOT-E 970
(NINTH REVISION)

EXPIRATION DATE: January 31, 2002

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Callery Chemical Company
Pittsburgh, Pennsylvania

(See Appendix A to this document for a list of additional grantees)

2. PURPOSE AND LIMITATION:

a. This exemption authorizes the transportation in commerce of diborane classed as a Division 2.3 material in DOT Specification 3AA cylinders overpacked in certain insulated drums or wooden boxes subject to the limitations and special requirements specified herein, and provides no relief from any regulation other than as specifically stated.

b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.302(g) in that a maximum authorized filling density of greater than 7 percent is authorized.
5. BASIS: This exemption is based on the application of Callery Chemical Company dated December 9, 1999, submitted in accordance with § 107.109.

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6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous materials description -- proper shipping name	Hazard Class/ Division	Identi- fication Number	Packing Group
Diborane, compressed	2.3	UN1911	N/A

7. PACKAGING AND SAFETY CONTROL MEASURES:a. PACKAGING - Packaging prescribed is as follows:

(1) DOT Specification 3AA2015 or 3AA2400 cylinders with valves shown in Callery Chemical Company drawings 3233-D, Revision 4, dated July 30, 1996 and 5232 with a filling density of 7% must be overpacked in an insulated drum with dry ice as per Callery Chemical Company's drawing 3252A, or with a filling density of 14% overpacked in an insulated drum or case with dry ice as per Callery Chemical Company's drawings 3410A and 3272A. Drawings are on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA).

(2) DOT Specification 3AA2400 cylinders (Drawing 3025C) packaged in accordance with details included in Callery Chemical Company's Drawing No. 3219-A or in DOT Specification 3AA2015 and 3AA2400 cylinders packaged in accordance with details included in Callery Chemical Company drawing No. 3272A on file with the OHMEA. Filling density may not exceed 28%. The outside packing case must be constructed of 3/4 inch outdoor plywood or equivalent with metal corners and have a five-inch insulation throughout of polyurethane foam and a plywood or equivalent liner. The outside packing case must be equipped with steel frame centers to hold the cylinder in place and the surrounding area must be filled with dry ice.

(3) DOT Specification 3AA2015 or 3AA2400 cylinders with valves installed as per Callery Chemical Company drawings 3233-D, Revision 4, dated July 30, 1996, and 5232, with a filling density of up to 28%, must be overpacked in an insulated drum with dry ice as per Callery Chemical Company's drawing D4061, on file with the OHMEA. The area surrounding the cylinder inside the outer packaging must be filled with dry ice.

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(4) Cylinders authorized under this exemption may be overpacked non-DOT specification metal drums, insulated, and filled with dry ice for refrigeration purposes. Insulated metal drums containing dry ice must have perforated top heads to allow venting of carbon dioxide. All drums used as overpacks, purchased after March 1, 1998, must meet the performance requirements for UN 1A2 steel drums for PG I solids (See § 178.504 and § 178.601-608) prior to installation of the insulation. If the drums are marked as a UN1A2 drums prior to modification by installation of insulation and perforation of the top head, the markings must be obliterated prior to use.

(5) The cylinders authorized under this exemption must comply with the requirements prescribed in § 173.40, except paragraph (d). The cylinders must be equipped with a single valve or the double valve arrangement detailed in Callery Chemical Company drawing No. 3233D, Revision 4, dated July 30, 1996 on file with OHMEA.

(6) Where this exemption prescribes the use of outside shipping containers designed for inclusion of dry ice, sufficient dry ice must be packed therein to provide refrigeration for a period of at least 14 days. Normal time in transportation must not exceed 10 (ten) days.

(7) Cylinders containing residual diborane must be kept in the outer packaging packed with sufficient amounts of dry ice to provide adequate refrigeration for a period of at least 14 days. The shipper then must notify Callery Chemical Company in writing via telegram or Facsimile (FAX) at 412-967-4333 of the intent to return the above cylinders and must obtain confirmation from Callery of the shipment due date.

b. TESTING - Each cylinder must be reinspected and hydrostatically retested every five years in accordance with § 173.34, prescribed for DOT 3AA specification cylinders as applicable.

c. OPERATIONAL CONTROLS:

(1) The shipper must require acknowledgment of receipt of shipment in writing by means of a telegram or Facsimile (FAX), and must promptly notify the OHMEA of

any such shipment not received at destination within two days after shipment is due.

(2) Drivers must have been instructed as to necessary safeguards and proper procedure in event of unusual delay, fire, or accident.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.

b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

c. MARKING - In addition to the POISON GAS label and the FLAMMABLE GAS label, each outside shipping container must bear a conspicuous label reading as follows: "IF NOT DELIVERED BEFORE _____, CARRIER MUST ADVISE THE (Name of Shipper, City and State), ALSO THE OFFICE OF HAZARDOUS MATERIALS SAFETY, WASHINGTON, D.C., BY WIRE." The date inserted in the blank space on this label must not be in excess of the number of days prescribed herein for each type of packaging, from the date shipment is first offered for transportation.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle and rail freight.

10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each motor vehicle used to transport packages covered by this exemption.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.

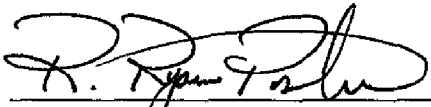
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued at Washington, D.C.:



for Robert A. McGuire
Acting Associate Administrator
for Hazardous Materials Safety

JUL 17 2000

(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590.
Attention: DHM-31.

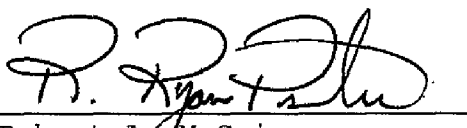
The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, SW, Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

PO: BD/RRP/sln

The following are hereby granted party status to this exemption based on their application(s) submitted in accordance with §§ 107.107 or 107.109, as appropriate:

Company Name City & State	Applica- tion date	Issue Date	Expiration Date
Voltaix, Inc. North Branch, NJ	12/1/99 & 4/26/00	JUL 17 2000	1/31/2002


For Robert A. McGuire
Acting Associate Administrator for
Hazardous Materials Safety